***BRUHAT BANGALORE MAHANAGARA PALIKE***

## *YELAHANKA ZONE*

***DIVISION: BYATARAYANAPURA***

***SUB DIVISION: VIDYARANYAAPURA***

***Name of Work:*** *Estimate for Improvements to Roads and Drains at KNV 2nd Stage, Muneshwara Layout in Ward No. 10, (Doddabommasandra), Vidyaranyapura Sub Division.*

## ***JOB CODE: 010-20-000076***

## ***P-3726 Zonal Public Works***

## ***Estimated Cost: Rs. 25.00 Lakhs***

## BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Improvements to Roads and Drains at KNV 2nd Stage, Muneshwara Layout in Ward No. 10 (Doddabommasandra), Vidyaranyapura Sub Division.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Estimation Cost.Rs | 2500000.00 |
| Sl No | Description of work | Unit | Mesurement No. | L | B | D | Qty | Rate | Amount |
| 1 | KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) | | | | | | | | |
| | New Drain | | | | | | | | |
| | 4th Cross Road | | | | | | | | |
| | | Sqm | 2 | 134.00 | 0.90 | 0.90 | 217.08 | | |
| | Drain Desilt | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Cum | 2 | 131.40 | 0.45 | 0.45 | 53.22 | | |
| | Basic rate | | | | | | | 130.00 | |
| | Area weightage 6% | | | | | | | 7.80 | |
| | 5Km lead & Lift= 57+(2*1.28*5) | | | | | | | 69.80 | |
| | Total | | | | | | 270.30 | 207.60 | 56113.66 |
| 2 | Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.27-I.No.5.33) | | | | | | | | |
| | Cover Slab | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Sqm | 2 | 131.40 | 0.90 | | 236.52 | | |
| | | | | | Sub Total | | 236.52 | | |
| | Consider 15% Missing or Damaged Slab | | | | | | 35.48 | | |
| | Basic rate | | | | | | | 105.00 | |
| | Area weightage 6% | | | | | | | 6.3 | |
| | Total | | | | | | 201.04 | 111.30 | 22375.97 |
| 3 | KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 | | | | | | | | |
| | New Drain | | | | | | | | |
| | 4th Cross Road | Cum | 2 | 134.00 | 0.80 | 0.15 | 32.16 | | |
| | Basic rate | | | | | | | 5194.00 | |
| | Area weightage 6% | | | | | | | 311.64 | |
| | | | | | | Total | 32.16 | 5505.64 | 177061.38 |
| 4 | Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no 271) | | | | | | | | |
| | Bottom Raft | | | | | | | | |
| | New Drain | | | | | | | | |
| | 4th Cross Road | Cum | 2 | 134.00 | 0.75 | 0.15 | 30.15 | | |
| | Walls | | | | | | | | |

| Sl No | Description of work | Unit | Mesurement No. | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| | New Drain | | | | | | | | |
| | 4th Cross Road | Cum | 4 | 134.00 | 0.15 | 0.60 | 48.24 | | |
| | Basic rate | | | | | | | 6670.00 | |
| | Area weightage 6% | | | | | | | 400.20 | |
| | Total | | | | | | 78.39 | 7070.20 | 554232.98 |
| 5 | KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2 | | | | | | | | |
| | For Drain 65kg | Tonne | | 78.39 | 0.055 | | 4.31 | | |
| | Basic rate | | | | | | | 68233 | |
| | Area weightage 6% | | | | | | | 4093.98 | |
| | Total | | | | | | 4.31 | 72326.98 | 311834.16 |
| 6 | Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate) | | | | | | | | |
| | Drain cover slab | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 4th Cross Road | Sqm | 2 | 134.00 | 0.75 | | 201.00 | | |
| | Consider 15% Missing or Damaged Slab | Sqm | | | | | 35.48 | | |
| | Data rate | | | | | | | 2337.00 | |
| | Total | | | | | | 236.48 | 2337.00 | 552649.09 |
| 7 | KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= ( I No-19.14,P No-143) | | | | | | | | |
| | Asphalt Raod | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Cum | 1 | 5.00 | 1.50 | 0.23 | 1.73 | | |
| | | Cum | 1 | 6.00 | 2.00 | 0.23 | 2.76 | | |
| | | Cum | 1 | 10.00 | 1.80 | 0.23 | 4.14 | | |
| | 4th Cross Road | | | | | | | | |
| | | Cum | 1 | 6.00 | 2.00 | 0.23 | 2.76 | | |
| | | Cum | 1 | 10.00 | 1.40 | 0.23 | 3.22 | | |
| | | Cum | 1 | 15.00 | 1.50 | 0.23 | 5.18 | | |
| | Basic rate | | | | | | | 41.00 | |
| | Area weightage 6% | | | | | | | 2.46 | |
| | 5Km lead= (2*1.28*5) | | | | | | | 12.80 | |
| | Total | | | | | | 19.78 | 56.26 | 1112.82 |
| 8 | KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18) | | | | | | | | |
| | Road cutting portion | | | | | | | | |

| Sl No | Description of work | Unit | Mesurement No. | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Cum | 1 | 5.00 | 1.50 | 0.23 | 1.73 | | |
| | | Cum | 1 | 6.00 | 2.00 | 0.23 | 2.76 | | |
| | | Cum | 1 | 10.00 | 1.80 | 0.23 | 4.14 | | |
| | 4th Cross Road | | | | | | | | |
| | | Cum | 1 | 6.00 | 2.00 | 0.23 | 2.76 | | |
| | | Cum | 1 | 10.00 | 1.40 | 0.23 | 3.22 | | |
| | | Cum | 1 | 15.00 | 1.50 | 0.23 | 5.18 | | |
| | Basic rate | | | | | | | 1888.00 | |
| | Area weightage 6% | | | | | | | 113.28 | |
| | Total | | | | | | 19.78 | 2001.28 | 39585.32 |
| 9 | KSRRB 500-1.Cleaning the existing WBM Road surface including removing of binding materials and other foreign matter with wire brushes and small picks sweeping with brooms or soft brushes and finally dusting with old gunny bags and bar or compressed air to receive bituminous treatment including cost of all materials, labhour, HOM of machineries complet as per specifications.(P.No.158,I.No.21.1) | | | | | | | | |
| | Road cutting portion | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Sqm | 1 | 5.00 | 1.50 | | 7.50 | | |
| | | Sqm | 1 | 6.00 | 2.00 | | 12.00 | | |
| | | Sqm | 1 | 10.00 | 1.80 | | 18.00 | | |
| | 4th Cross Road | | | | | | | | |
| | | Sqm | 1 | 6.00 | 2.00 | | 12.00 | | |
| | | Sqm | 1 | 10.00 | 1.40 | | 14.00 | | |
| | | Sqm | 1 | 15.00 | 1.50 | | 22.50 | | |
| | | | Sub Total | | | | 86.00 | | |
| | | | | | | | | | |
| | For 15% Profile Correction | Sqm | 1121.4*15% | | | | 179.15 | | |
| | Basic rate | | | | | | | 21.00 | |
| | Area weightage 6% | | | | | | | 1.26 | |
| | Total | | | | | | 265.15 | 22.26 | 5902.13 |
| 10 | KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6) | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Sqm | 1 | 5.00 | 1.50 | | 7.50 | | |
| | | Sqm | 1 | 6.00 | 2.00 | | 12.00 | | |
| | | Sqm | 1 | 10.00 | 1.80 | | 18.00 | | |
| | 4th Cross Road | | | | | | | | |
| | | Sqm | 1 | 6.00 | 2.00 | | 12.00 | | |
| | | Sqm | 1 | 10.00 | 1.40 | | 14.00 | | |
| | | Sqm | 1 | 15.00 | 1.50 | | 22.50 | | |
| | | | Sub Total | | | | 86.00 | | |
| | | | | | | | | | |
| | For 15% Profile Correction | Sqm | 1121.4*15% | | | | 179.15 | | |

| Sl No | Description of work | Unit | Mesurement No. | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| | Basic rate | | | | | | | 27.00 | |
| | Area weightage 6% | | | | | | | 1.62 | |
| | Total | | | | | | 265.15 | 28.62 | 7588.45 |
| 11 | KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6) | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Cum | 1 | 5.00 | 1.50 | 0.05 | 0.38 | | |
| | | Cum | 1 | 6.00 | 2.00 | 0.05 | 0.60 | | |
| | | Cum | 1 | 10.00 | 1.80 | 0.05 | 0.90 | | |
| | 4th Cross Road | | | | | | | | |
| | | Cum | 1 | 6.00 | 2.00 | 0.05 | 0.60 | | |
| | | Cum | 1 | 10.00 | 1.40 | 0.05 | 0.70 | | |
| | | Cum | 1 | 15.00 | 1.50 | 0.05 | 1.13 | | |
| | | | | | Sub Total | | 4.30 | | |
| | For 15% Profile Correction | Sqm | (1121.4*15%)*0.05 | | | | 8.96 | | |
| | | | | | | | | | |
| | Basic rate | | | | | | | 6224.00 | |
| | Area weightage 6% | | | | | | | 373.44 | |
| | Total | | | | | | 13.26 | 6597.44 | 87463.91 |
| 12 | KSRRB 500-2.Cleaning the existing black topped surface with brooms,soft brushes and finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials,labhour, HOM of machineries complete as per specifications.(P.No.158,I.No.21.12). | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Sqm | 1 | 131.40 | 4.50 | | 591.30 | | |
| | 4th Cross Road | | | | | | | | |
| | | Sqm | 1 | 134.00 | 4.50 | | 603.00 | | |
| | Basic rate | | | | | | | 5.00 | |
| | Area weightage 6% | | | | | | | 0.3 | |
| | Total | | | | | | 1194.30 | 5.30 | 6329.79 |
| 13 | KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7) | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Sqm | 1 | 131.40 | 4.50 | | 591.30 | | |
| | 4th Cross Road | | | | | | | | |
| | | Sqm | 1 | 134.00 | 4.50 | | 603.00 | | |
| | Basic rate | | | | | | | 12.00 | |
| | Area weightage 6% | | | | | | | 0.72 | |
| | Total | | | | | | 1194.30 | 12.72 | 15191.50 |

| Sl No | Description of work | Unit | Mesurement No. | L | B | D | Qty | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 14 | KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4% VG-30 Bitumen(P.No-162,I No-21.22.6) | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Cum | 1 | 131.40 | 4.50 | 0.04 | 23.65 | | |
| | 4th Cross Road | | | | | | | | |
| | | Cum | 1 | 134.00 | 4.50 | 0.04 | 24.12 | | |
| | Basic rate | | | | | | | 7315.00 | |
| | Area weightage 6% | | | | | | | 438.90 | |
| | Total | | | | | | 47.77 | 7753.90 | 370419.31 |
| 15 | KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15) | | | | | | | | |
| | Muneshwara layout | | | | | | | | |
| | 3rd Cross Road | | | | | | | | |
| | | Sqm | 2 | 131.40 | 0.10 | | 26.28 | | |
| | 4th Cross Road | | | | | | | | |
| | | Sqm | 2 | 134.00 | 0.10 | | 26.80 | | |
| | Basic rate | | | | | | | 429.00 | |
| | Area weightage 6% | | | | | | | 25.74 | |
| | Total | | | | | | 53.08 | 454.74 | 24137.60 |
| | | | | | | | | Grand Total | 2231998.06 |
| | | | | | | | | GST Charges (12% of estimated cost) | 267839.77 |
| | | | | | | | | Miscellenious and rounding | 162.17 |
| | | | | | | | | Total Amount | 2500000.00 |
| | | | | | | | | RUPEES NINETY NINE LAKHS ONLY | |

Administrative Approval
Accorded For Rs 25 w Lakhs only
Head of A/C..P 3726
CER NO : 169 Dt: 27.03.2020

TA CE (YNK)

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Technical Sanction
Accorded For Rs 25 w Lakhs only
Head of A/C.P 3726
CER NO : 333 Dt: 27.03.2020

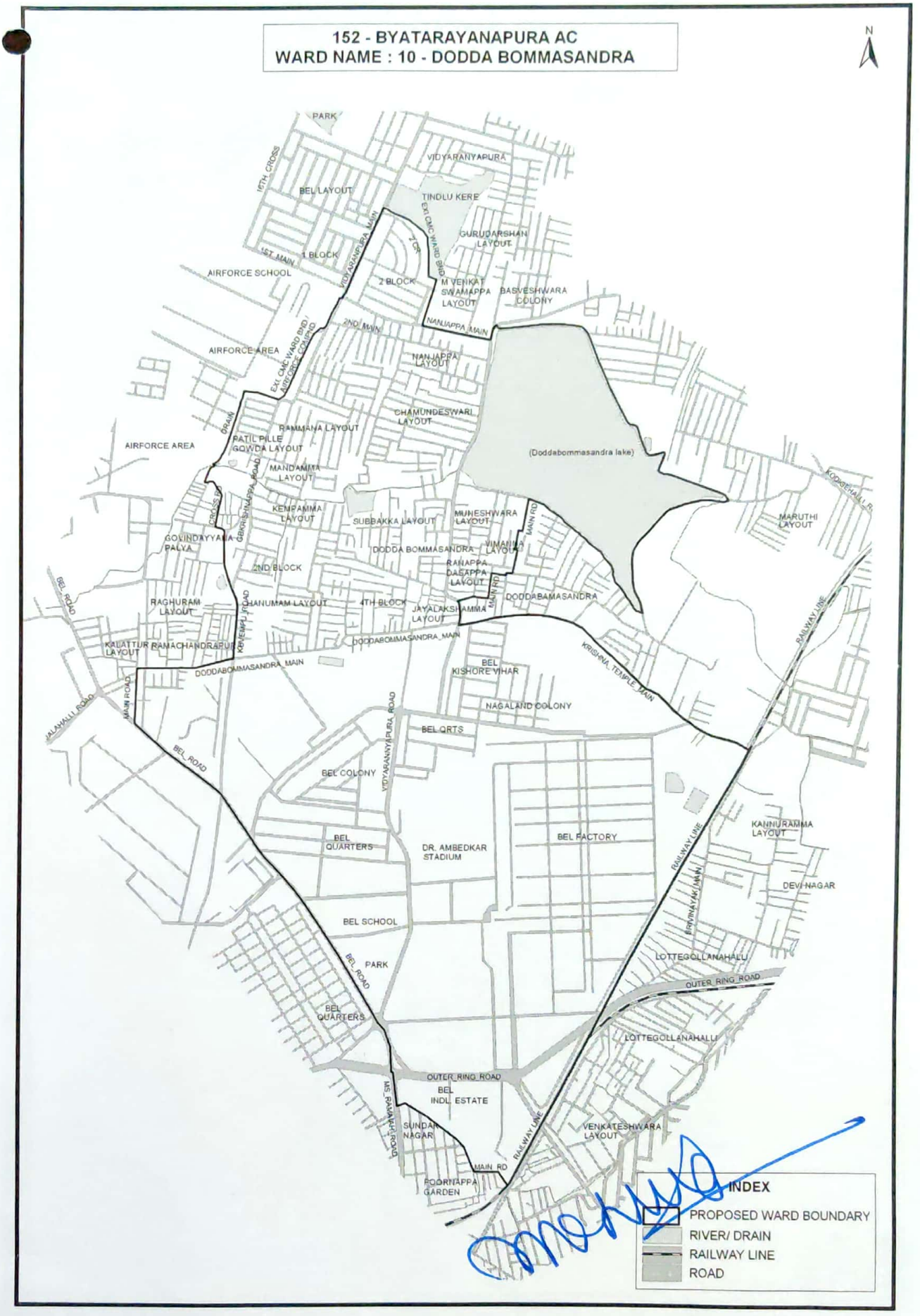
TA CE (YNK)

Assistant Engineer
Vidyaranyapuram Sub Division
BBMP

Assistant Executive Engineer
Vidyaranyapuram Sub Division
BBMP

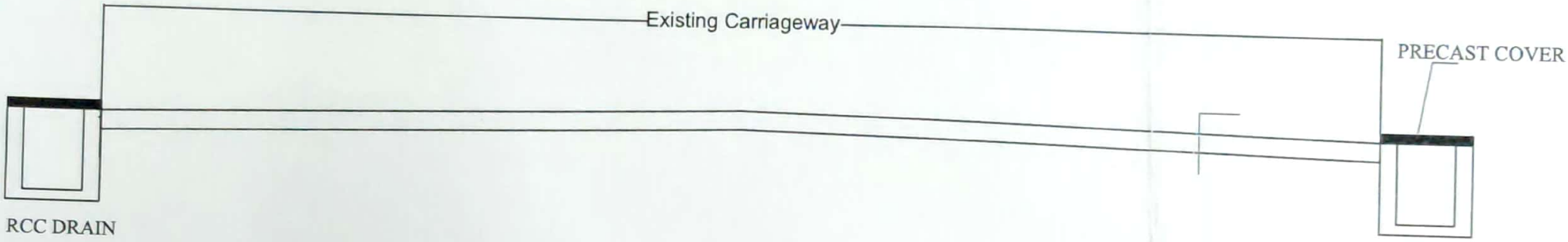
Executive Engineer
Byatarayanapura Division
BBMP

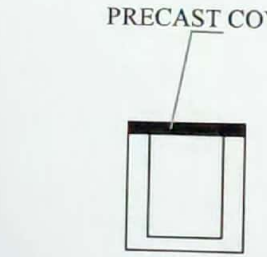
# 152 - BYATARAYANAPURA AC
# WARD NAME : 10 - DODDA BOMMASANDRA



**Improvements to Roads and Drains at KNV 2nd Stage, Muneshwara Layout in Ward No. 10 (Doddabommasandra), Vidyaranyapura Sub Division.**

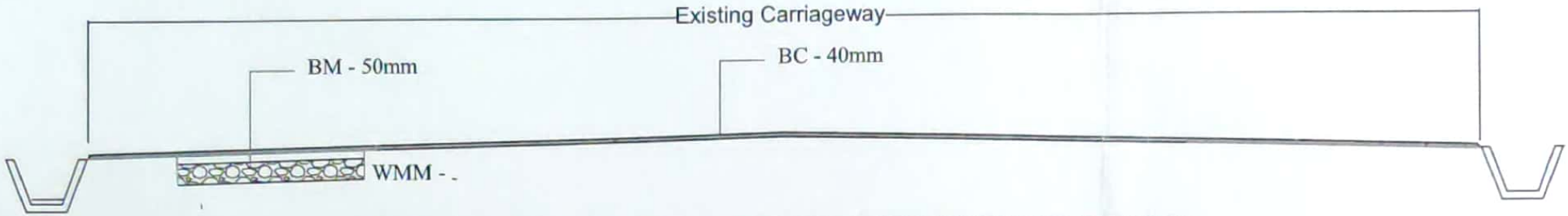
Sweetha. N K
AE W10



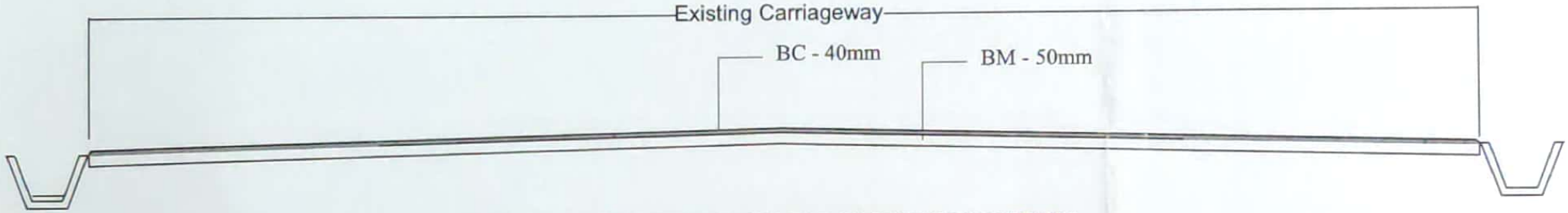




TYPICAL CROSS SECTION OF RCC DRAIN

Suretha. NK
AE W10




TYPICAL CROSS SECTION FOR RECONSTRUCTION OF UGD PORTION




TYPICAL CROSS SECTION FOR RECONSTRUCTION